

WHAT IS CLAIMED IS:

1. An optical switching device comprising a plurality of input/output ports for inputting/outputting optical signals, and switching means for switching between
5 input/output optical paths of the input/output ports;

wherein the switching means switches between the input/output optical paths of the input/output ports so as to keep an optical signal led to any of the plurality of input/output ports from traversing other input/output
10 ports.

2. An optical switching device according to claim 1, wherein the switching means comprises an optical member for reflecting an optical signal inputted from any of the plurality of input/output ports toward another of the
15 input/output ports;

wherein the optical member is disposed displaceable so as to move an output point of the optical signal into a direction along an aligning direction of the plurality of input/output ports; and

20 wherein the optical member is disposed displaceable so as to move the output point of the optical signal into a direction intersecting the aligning direction of the plurality of input/output ports.

3. An optical switching device according to claim 1, further comprising an optical demultiplexer device for demultiplexing a wavelength division multiplexing optical
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signal into individual wavelengths; and

wherein the switching means comprises a plurality of optical members corresponding to respective signal light components demultiplexed into the individual wavelengths.

5 4. An optical switching device according to claim 1, wherein the switching means comprises a substrate, and a cantilever for supporting the optical member over the substrate;

10 wherein the optical member is disposed so as to be able to tilt from side to side about an axis of the cantilever; and

wherein the cantilever is disposed flexible toward the substrate.

15 5. An optical switching device according to claim 4, wherein the switching means comprises a first electrode, disposed on the substrate, for tilting the optical member about the axis of the cantilever; and

a second electrode, disposed on the substrate, for flexing the cantilever toward the substrate.

20 6. An optical switching device according to claim 1, wherein the time required for switching between input/output paths of input/output ports is 10 ms or less.

25 7. An optical switching device according to claim 1, wherein, when switching between input/output paths of input/output ports, crosstalk to the other input/output ports is -25 dB or better.

8. An optical transmission system comprising the optical switching device according to claim 1.

9. Switching means comprising:

a substrate;

5 an optical member for reflecting light inputted; and

a cantilever for supporting the optical member over the substrate;

wherein the optical member is disposed so as to be able to tilt from side to side about an axis of the cantilever;

10 and

wherein the cantilever is disposed flexible toward the substrate.